

=> d his

(FILE 'HOME' ENTERED AT 15:49:28 ON 05 DEC 2005)

FILE 'REGISTRY' ENTERED AT 15:49:34 ON 05 DEC 2005

L1 STRUCTURE UPLOADED

L2 1 S L1

L3 28 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 15:55:04 ON 05 DEC 2005

L4 3 S L3

L5 1 S L4 AND BURRILL, L?/AU

L6 2 S L4 NOT L5

L7 0 S L6 AND PALMER, J?/AU

L8 1 S L6 AND RYDZEWSKI, R?/AU

L9 1 S L6 NOT L8

L10 3 S BURRILL, L?/AU AND PALMER, J?/AU AND RYDZEWSKI, R?/AU

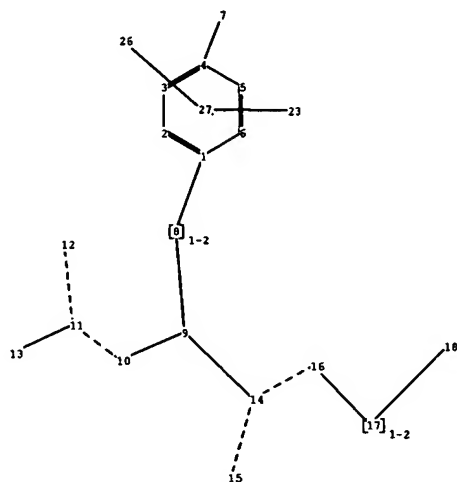
L11 2 S L10 NOT L4

FILE 'CAOLD' ENTERED AT 15:58:23 ON 05 DEC 2005

=> s 1.3

L12 0 L3

=>












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* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 SEP 09 ACD predicted properties enhanced in REGISTRY/ZREGISTRY
NEWS 4 OCT 03 MATHDI removed from STN
NEWS 5 OCT 04 CA/CAPLUS-Canadian Intellectual Property Office (CIPO) added
to core patent offices
NEWS 6 OCT 13 New CAS Information Use Policies Effective October 17, 2005
NEWS 7 OCT 17 STN(R) AnaVist(TM), Version 1.01, allows the export/download
of CAPLUS documents for use in third-party analysis and
visualization tools
NEWS 8 OCT 27 Free KWIC format extended in full-text databases
NEWS 9 OCT 27 DIOGENES content streamlined
NEWS 10 OCT 27 EPFULL enhanced with additional content
NEWS 11 NOV 14 CA/CAPLUS - Expanded coverage of German academic research
NEWS 12 NOV 30 REGISTRY/ZREGISTRY on STN(R) enhanced with experimental
spectral property data
NEWS 13 DEC 05 CASREACT(R) - Over 10 million reactions available

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CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 02 DECEMBER 2005.
V8.0 USERS CAN OBTAIN THE UPGRADE TO V8.01 AT
<http://download.cas.org/express/v8.0-Discover/>

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 15:49:28 ON 05 DEC 2005

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 15:49:34 ON 05 DEC 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 4 DEC 2005 HIGHEST RN 869277-23-6

DICTIONARY FILE UPDATES: 4 DEC 2005 HIGHEST RN 869277-23-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

```
*****
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*
*****
```

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

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Uploading structure

L1 STRUCTURE UPLOADED

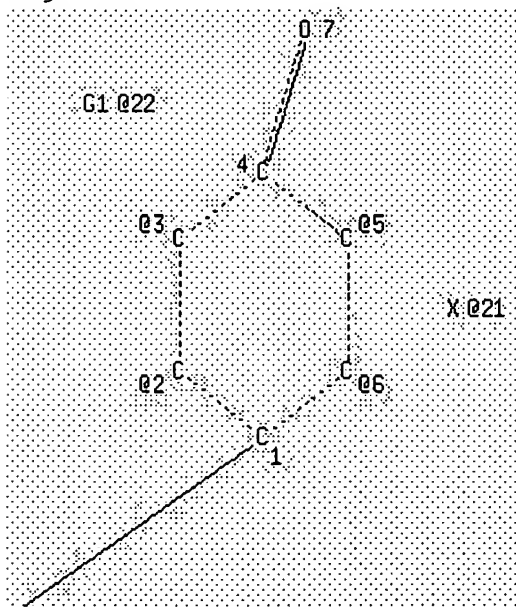
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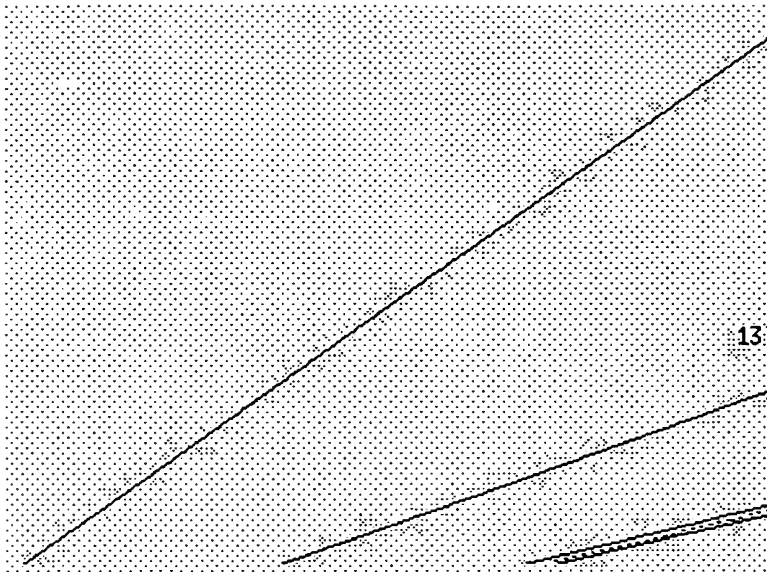
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AK 24X 25

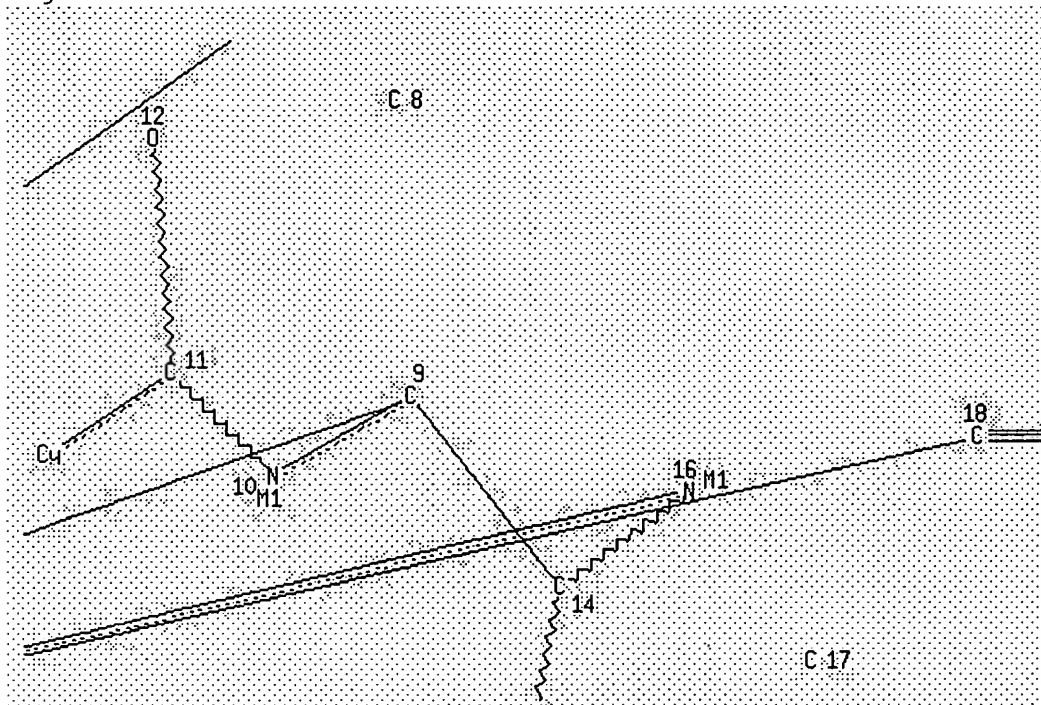
Page 1-A



Page 1-B



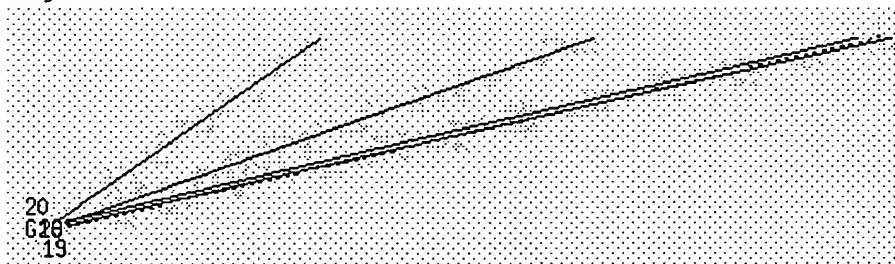
Page 2-A



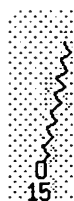
Page 2-B

≡ N
23

Page 2-C



Page 3-A



Page 3-B

VAR G1=24/25

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REP G20=(1-2) 17-16 17-18

VPA 21-2/3/5/6 S

VPA 22-2/3/5 S

NODE ATTRIBUTES:

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HCOUNT	IS M1	AT	16
NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
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DEFAULT MLEVEL IS ATOM

MLEVEL IS CLASS AT 7 8 9 10 11 12 14 15 16 17 18 21 23 24 25

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE

=> s 11

SAMPLE SEARCH INITIATED 15:54:55 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 95 TO ITERATE

100.0% PROCESSED 95 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 1316 TO 2484

PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> s l1 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 160.90 U.S. DOLLARS

DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y

FULL SEARCH INITIATED 15:55:00 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 2222 TO ITERATE

100.0% PROCESSED 2222 ITERATIONS

28 ANSWERS

SEARCH TIME: 00.00.01

L3 28 SEA SSS FUL L1

=> file hcaplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

164.77

164.98

FILE 'HCAPLUS' ENTERED AT 15:55:04 ON 05 DEC 2005

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FILE COVERS 1907 - 5 Dec 2005 VOL 143 ISS 24

FILE LAST UPDATED: 4 Dec 2005 (20051204/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3

L4 3 L3

=> s l4 and burrill, l?/au

17 BURRILL, L?/AU

L5 1 L4 AND BURRILL, L?/AU

=> d l5, ibib abs hit.str, 1

L5 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN

Full
Text

CITE
References

ACCESSION NUMBER: 2004:267319 HCAPLUS

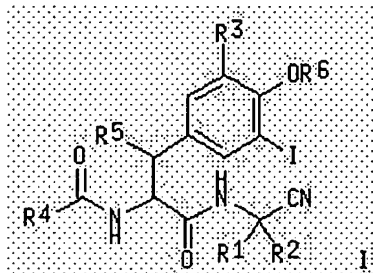
DOCUMENT NUMBER: 140:304079

TITLE: Preparation of iodotyrosine cyanomethylamides as Cathepsin B inhibitors

INVENTOR(S): **Burrill, Leland C., II; Palmer, James T.; Rydzewski, Robert M.**
 PATENT ASSIGNEE(S): **Axys Pharmaceuticals, Inc., USA**
 SOURCE: **PCT Int. Appl., 42 pp.**
 CODEN: PIXXD2
 DOCUMENT TYPE: **Patent**
 LANGUAGE: **English**
 FAMILY ACC. NUM. COUNT: **1**
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2004026851</u>	A1	20040401	<u>WO 2003-US29545</u>	20030916
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
<u>CA 2498149</u>	AA	20040401	<u>CA 2003-2498149</u>	20030916
<u>EP 1539725</u>	A1	20050615	<u>EP 2003-774482</u>	20030916
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
<u>PRIORITY APPLN. INFO.:</u>			<u>US 2002-412368P</u>	P 20020920
			<u>WO 2003-US29545</u>	W 20030916

OTHER SOURCE(S): **MARPAT 140:304079**
 GI



AB Title compds. [I; R1, R2 = H, alkyl, haloalkyl, hydroxyalkyl, aryl, aralkyl; R1R2 = atoms to form a cycloalkyl, heterocycloalkyl ring; R3 = alkyl, iodo; R4 = (substituted) aryl, heteroaryl, heterocycloalkyl; R5, R6 = H, alkyl], were prep'd. as Cathepsin B inhibitors (no data). Thus, 4-morpholinobenzoic acid hydrochloride, hydroxybenzotriazole, Et3N, and EDC were stirred 30 min in DMF; L-3,5-diiodotyrosine, Et3N, and H2O in DMF were added followed by stirring for 16 h to give (S)-3-(4-hydroxy-3,5-diiodophenyl)-2-(4-morpholin-4-ylbenzoylamino)propionic acid. The latter was stirred overnight with aminoacetonitrile hydrochloride, HBTU, and N-methylmorpholine in DMF to give (S)-N-[1-(cyanomethylcarbamoyl)-2-(4-hydroxy-3,5-diiodophenyl)ethyl]-4-morpholin-4-ylbenzamide.

IT 676477-45-5P, (S)-N-[1-(Cyanomethylcarbamoyl)-2-(4-hydroxy-3,5-diiodophenyl)ethyl]-4-morpholin-4-ylbenzamide 676477-48-8P
676477-50-2P 676477-52-4P 676477-53-5P
676477-54-6P 676477-55-7P 676477-63-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

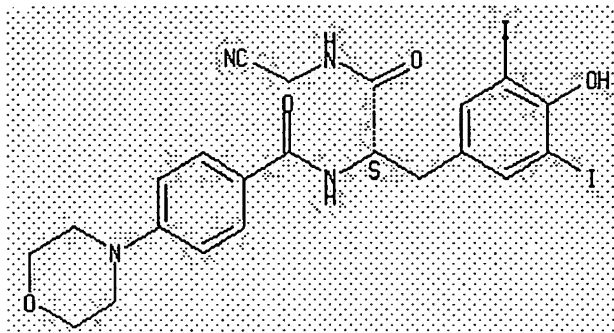
(Uses)

(prepn. of iodotyrosine cyanomethylamides as Cathepsin B inhibitors)

RN 676477-45-5 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3,5-diiodo- α -[[4-(4-morpholinyl)benzoyl]amino]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 676477-48-8 HCAPLUS

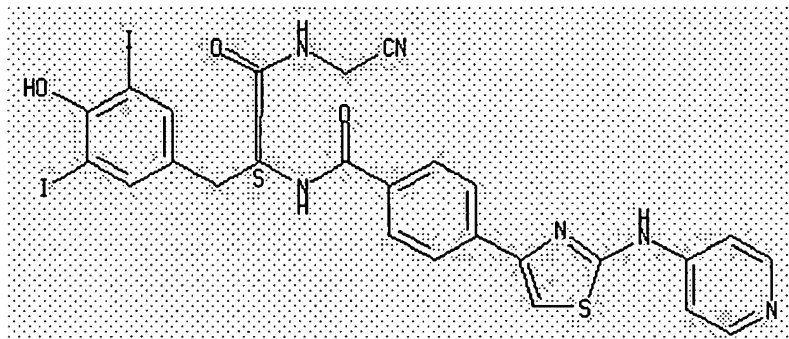
CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3,5-diiodo- α -[[4-[2-(4-pyridinylamino)-4-thiazolyl]benzoyl]amino]-, (α S)-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 676477-47-7

CMF C26 H20 I2 N6 O3 S

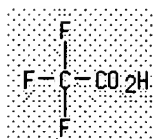
Absolute stereochemistry.



CM 2

CRN 76-05-1

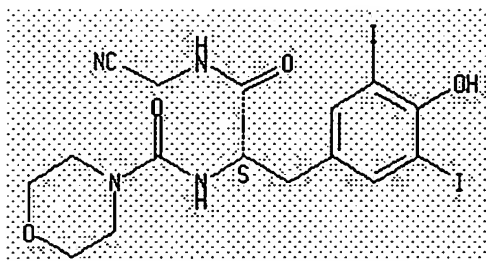
CMF C2 H F3 O2



RN 676477-50-2 HCAPLUS

CN 4-Morpholinecarboxamide, N-[(1S)-2-[(cyanomethyl)amino]-1-[(4-hydroxy-3,5-diiodophenyl)methyl]-2-oxoethyl]- (9CI) (CA INDEX NAME)

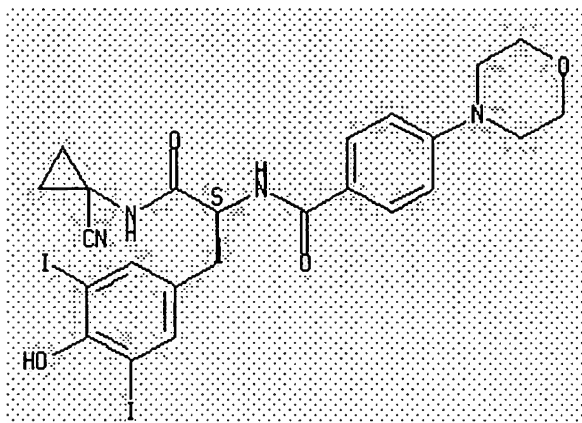
Absolute stereochemistry.



RN 676477-52-4 HCAPLUS

CN Benzenepropanamide, N-(1-cyanocyclopropyl)-4-hydroxy-3,5-diiodo- α -[[4-(4-morpholinyl)benzoyl]amino]-, (α S)- (9CI) (CA INDEX NAME)

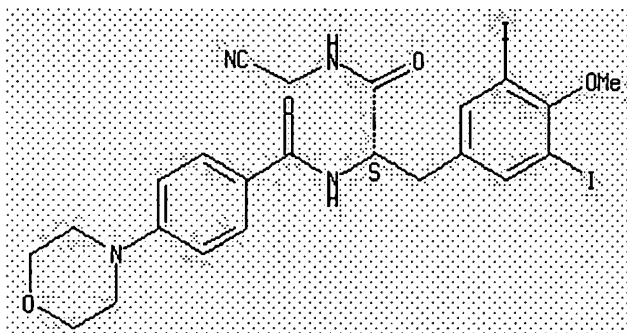
Absolute stereochemistry.



RN 676477-53-5 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-3,5-diiodo-4-methoxy- α -[[4-(4-morpholinyl)benzoyl]amino]-, (α S)- (9CI) (CA INDEX NAME)

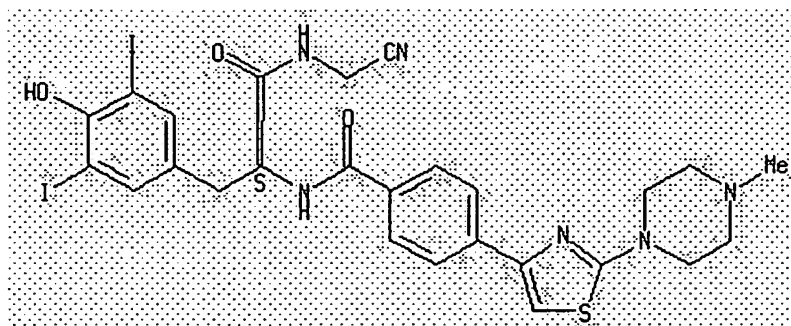
Absolute stereochemistry.



RN 676477-54-6 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3,5-diiodo- α -[[4-[2-(4-methyl-1-piperazinyl)-4-thiazolyl]benzoyl]amino]-, (α S)- (9CI) (CA INDEX NAME)

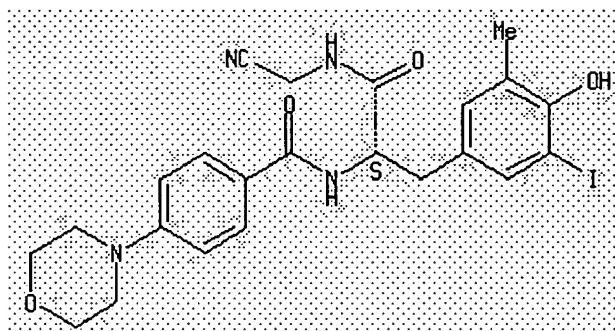
Absolute stereochemistry.



RN 676477-55-7 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3-iodo-5-methyl- α -[[4-(4-morpholinyl)benzoyl]amino]-, (α S)- (9CI) (CA INDEX NAME)

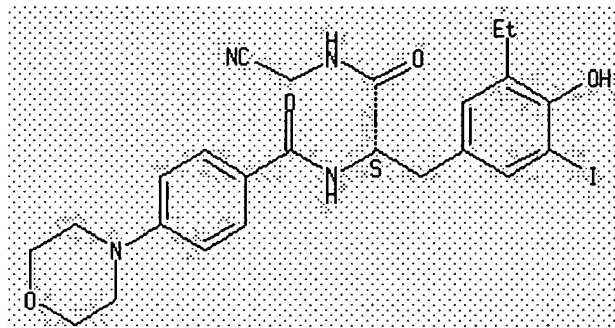
Absolute stereochemistry.



RN 676477-63-7 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-3-ethyl-4-hydroxy-5-iodo- α -[[4-(4-morpholinyl)benzoyl]amino]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

1

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 15:49:28 ON 05 DEC 2005)

FILE 'REGISTRY' ENTERED AT 15:49:34 ON 05 DEC 2005

L1 STRUCTURE UPLOADED

L2 1 S L1

L3 28 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 15:55:04 ON 05 DEC 2005

L4 3 S L3

L5 1 S L4 AND BURRILL, L?/AU

=> s 14 not 15

L6 2 L4 NOT L5

=> s 16 and palmer, j?/au

1564 PALMER, J?/AU

L7 0 L6 AND PALMER, J?/AU

=> s 16 and rydzewski, r?/au

29 RYDZEWSKI, R?/AU

L8 1 L6 AND RYDZEWSKI, R?/AU

=> d 18, ibib abs hitstr, 1

L8 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN

Full
Text

Chemical
References

ACCESSION NUMBER: 2005:1123751 HCAPLUS

DOCUMENT NUMBER: 143:399840

TITLE: Cathepsin B inhibitors for the treatment of diabetes and metabolic syndrome

INVENTOR(S): Broder, Samuel E.; Rydzewski, Robert M.

PATENT ASSIGNEE(S): Axys Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005097103	A2	20051020	WO 2005-US11065	20050401
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RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2004-558933P P 20040401

AB The invention is directed to the treatment of e.g. Type II diabetes by administering a cathepsin B inhibitor(s).

IT 676477-45-5 676477-47-7 676477-53-5

676477-54-6 676477-55-7 676477-63-7

867030-89-5 867030-90-8 867030-91-9

867030-92-0 867030-93-1 867030-94-2

867030-95-3 867030-96-4 867030-97-5

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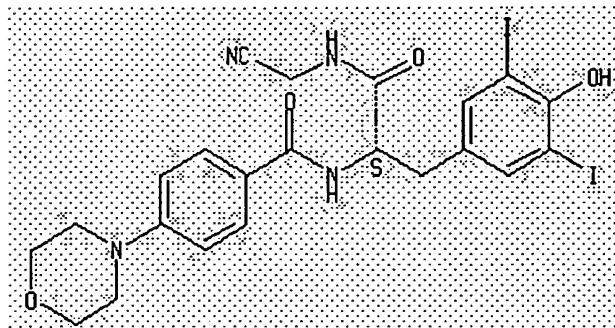
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(cathepsin B inhibitors for treatment of diabetes and metabolic syndrome)

RN 676477-45-5 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3,5-diiodo- α -[[4-(4-morpholinyl)benzoyl]amino]-, (α S)- (9CI) (CA INDEX NAME)

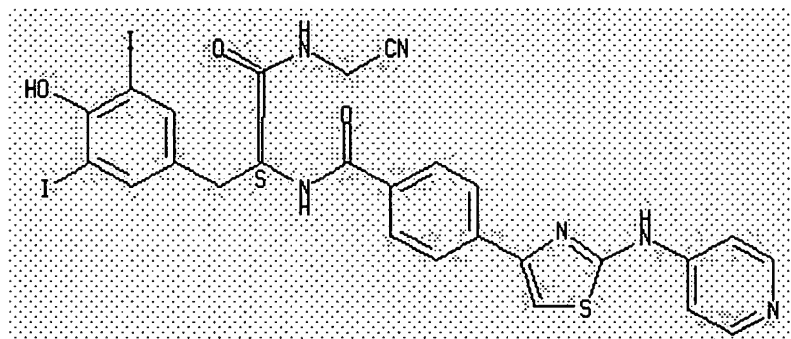
Absolute stereochemistry.



RN 676477-47-7 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3,5-diiodo- α -[[4-[2-(4-pyridinylamino)-4-thiazolyl]benzoyl]amino]-, (α S)- (9CI) (CA INDEX NAME)

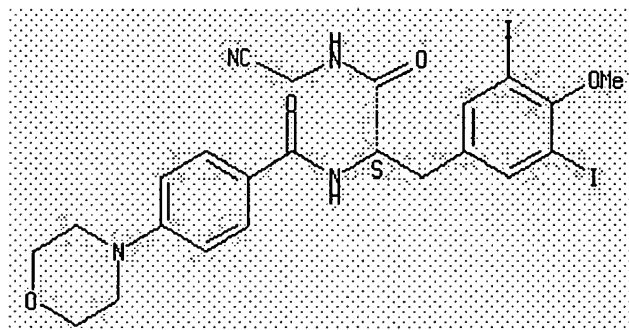
Absolute stereochemistry.



RN 676477-53-5 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-3,5-diiodo-4-methoxy- α -[[4-(4-morpholinyl)benzoyl]amino]-, (α S)- (9CI) (CA INDEX NAME)

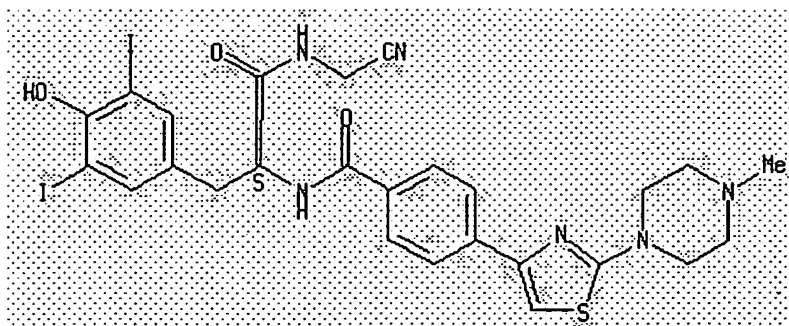
Absolute stereochemistry.



RN 676477-54-6 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3,5-diiodo- α -[[4-[2-(4-methyl-1-piperazinyl)-4-thiazolyl]benzoyl]amino]-, (α S)- (9CI) (CA INDEX NAME)

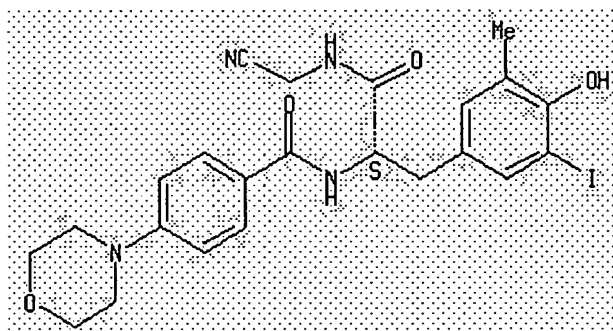
Absolute stereochemistry.



RN 676477-55-7 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3-iodo-5-methyl- α -[[4-(4-morpholinyl)benzoyl]amino]-, (α S)- (9CI) (CA INDEX NAME)

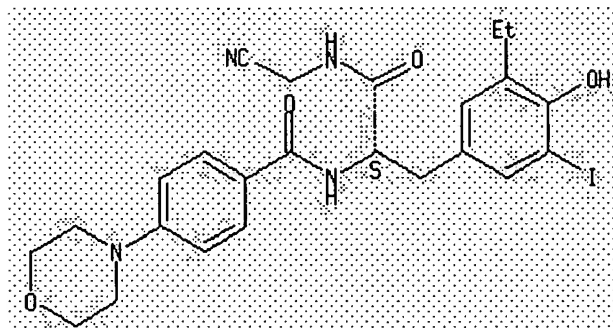
Absolute stereochemistry.



RN 676477-63-7 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-3-ethyl-4-hydroxy-5-iodo- α -[[4-(4-morpholinyl)benzoyl]amino]-, (α S)- (9CI) (CA INDEX NAME)

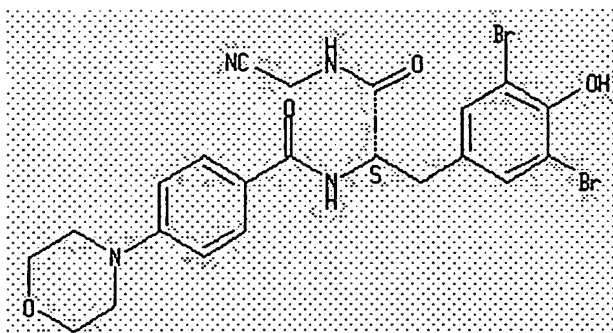
Absolute stereochemistry.



RN 867030-89-5 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED

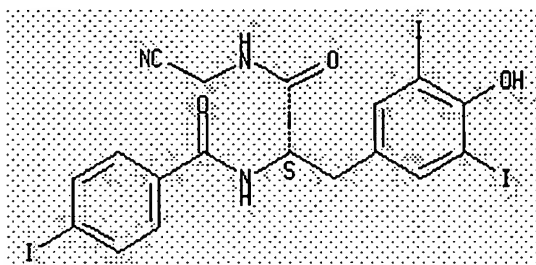
Absolute stereochemistry.



RN 867030-90-8 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3,5-diiodo- α -[(4-iodobenzoyl)amino]-, (α S)- (9CI) (CA INDEX NAME)

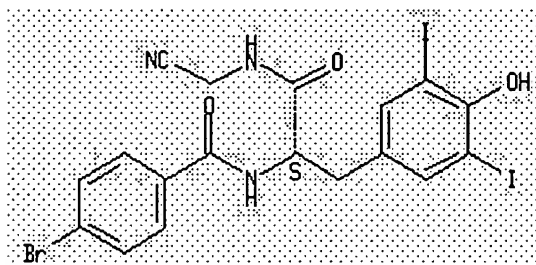
Absolute stereochemistry.



RN 867030-91-9 HCAPLUS

CN Benzenepropanamide, α -[(4-bromobenzoyl)amino]-N-(cyanomethyl)-4-hydroxy-3,5-diiodo-, (α S)- (9CI) (CA INDEX NAME)

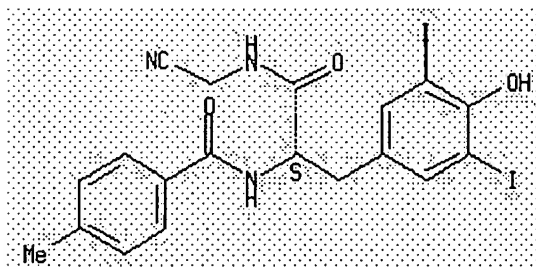
Absolute stereochemistry.



RN 867030-92-0 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3,5-diiodo- α -[(4-methylbenzoyl)amino]-, (α S)- (9CI) (CA INDEX NAME)

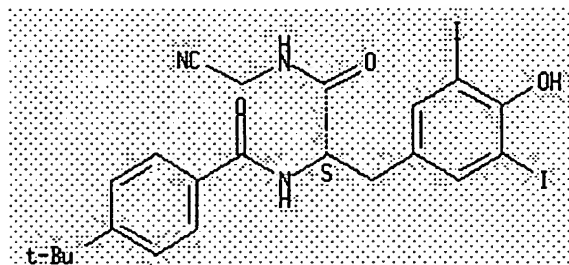
Absolute stereochemistry.



RN 867030-93-1 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)- α -[[4-(1,1-dimethylethyl)benzoyl]amino]-4-hydroxy-3,5-diiodo-, (α S)- (9CI) (CA INDEX NAME)

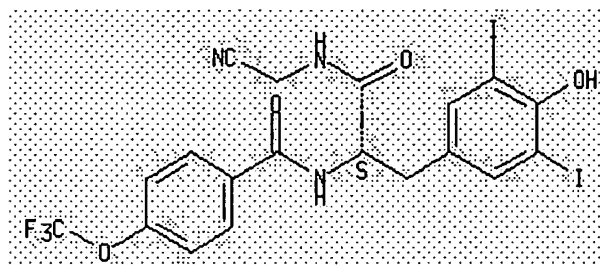
Absolute stereochemistry.



RN 867030-94-2 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3,5-diiodo-α-[[4-(trifluoromethoxy)benzoyl]amino]-, (αS)- (9CI) (CA INDEX NAME)

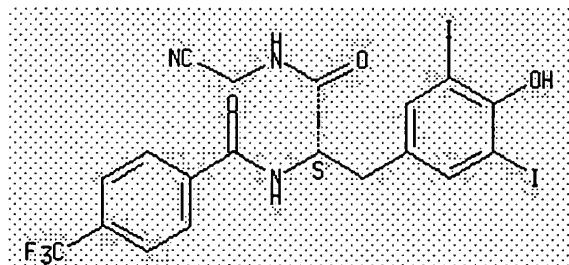
Absolute stereochemistry.



RN 867030-95-3 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3,5-diiodo-α-[[4-(trifluoromethyl)benzoyl]amino]-, (αS)- (9CI) (CA INDEX NAME)

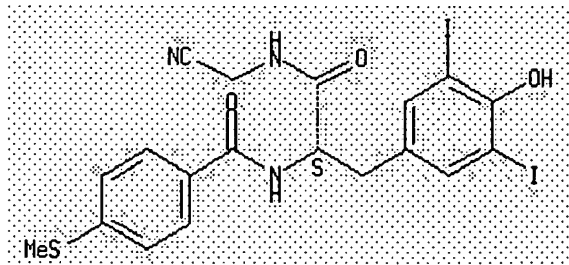
Absolute stereochemistry.



RN 867030-96-4 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3,5-diiodo-α-[[4-(methylthio)benzoyl]amino]-, (αS)- (9CI) (CA INDEX NAME)

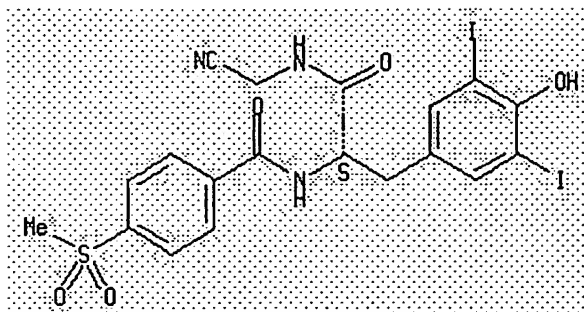
Absolute stereochemistry.



RN 867030-97-5 HCAPLUS

CN Benzenepropanamide, N-(cyanomethyl)-4-hydroxy-3,5-diiodo-α-[[4-(methylsulfonyl)benzoyl]amino]-, (αS)- (9CI) (CA INDEX NAME)

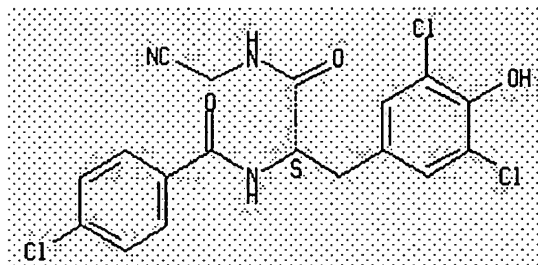
Absolute stereochemistry.



RN 867030-98-6 HCAPLUS

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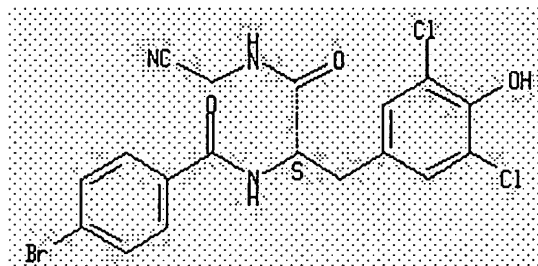
Absolute stereochemistry.



RN 867030-99-7 HCAPLUS

CN Benzenepropanamide, α -[(4-bromobenzoyl)amino]-3,5-dichloro-N-(cyanomethyl)-4-hydroxy-, (α S)- (9CI) (CA INDEX NAME)

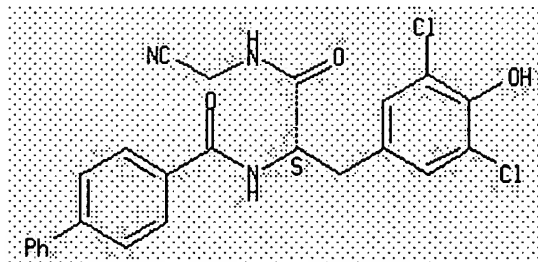
Absolute stereochemistry.



RN 867031-00-3 HCAPLUS

CN [1,1'-Biphenyl]-4-carboxamide, N-[(1S)-2-[(cyanomethyl)amino]-1-[(3,5-dichloro-4-hydroxyphenyl)methyl]-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

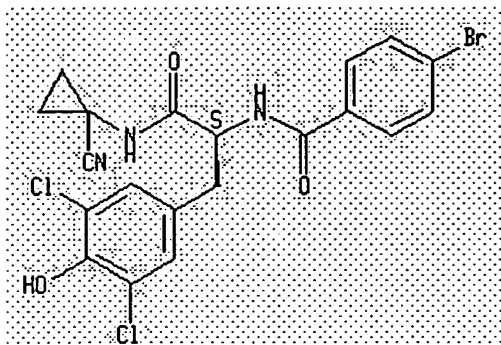


RN 867031-01-4 HCAPLUS

CN Benzenepropanamide, α -[(4-bromobenzoyl)amino]-3,5-dichloro-N-(1-phenyl-2-oxoethyl)-4-hydroxy-, (α S)- (9CI) (CA INDEX NAME)

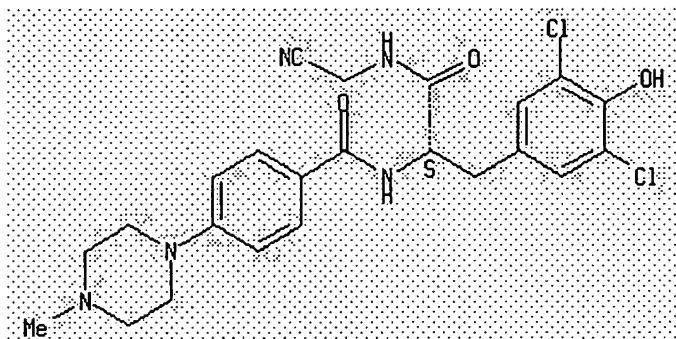
cyanocyclopropyl)-4-hydroxy-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



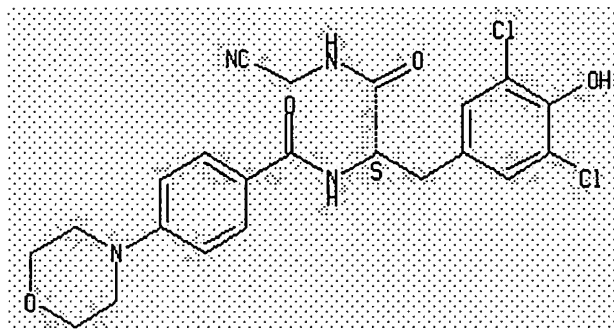
RN 867031-02-5 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



RN 867031-03-6 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



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FILE 'REGISTRY' ENTERED AT 15:49:34 ON 05 DEC 2005

L1 STRUCTURE UPLOADED

L2 1 S L1

L3 28 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 15:55:04 ON 05 DEC 2005

L4 3 S L3
 L5 1 S L4 AND BURRILL, L?/AU
 L6 2 S L4 NOT L5
 L7 0 S L6 AND PALMER, J?/AU
 L8 1 S L6 AND RYDZEWSKI, R?/AU

=> s l6 not l8

L9 1 L6 NOT L8

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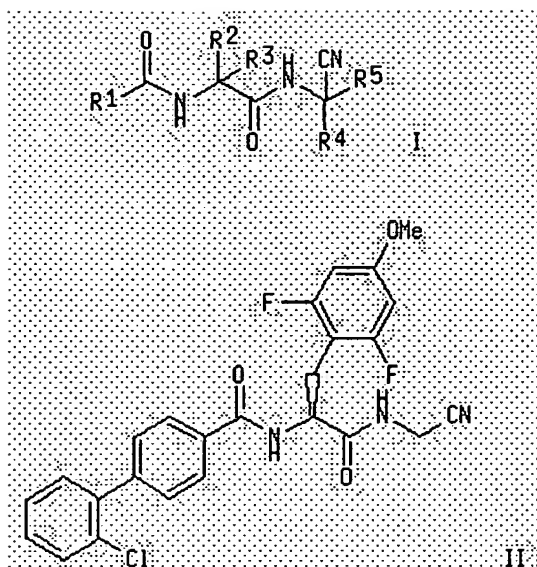
L9 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN

Full
Text

References

ACCESSION NUMBER: 2004:515539 HCAPLUS
 DOCUMENT NUMBER: 141:71829
 TITLE: Cyanomethyl derivatives as cysteine protease inhibitors
 INVENTOR(S): Graupe, Michael; Lau, Agnes J.; Link, John O.; Liu, Yang; Mossman, Craig J.; Patterson, John W.; Zipfel, Sheila M.
 PATENT ASSIGNEE(S): Axys Pharmaceuticals, Inc., USA
 SOURCE: PCT Int. Appl., 134 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2004052921</u>	A1	20040624	<u>WO 2003-US37979</u>	20031126
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
<u>CA 2506114</u>	AA	20040624	<u>CA 2003-2506114</u>	20031126
<u>EP 1569954</u>	A1	20050907	<u>EP 2003-796499</u>	20031126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
<u>PRIORITY APPLN. INFO.:</u>			<u>US 2002-431354P</u>	P 20021205
			<u>WO 2003-US37979</u>	W 20031126
OTHER SOURCE(S):	MARPAT	141:71829		
GI				



AB The dipeptide derivs. [I [R1 = substituted Ph, aryl, diaryl, heterodiaryl, furanyl, arylfuranyl, pyrazolyl, etc.; R2 = H, (un)substituted cycloalkyl, indolyl, alkylindolyl, Me, Et, Pr, pentyl, etc.; R3 = H, or R2 and R3 together with the carbon atom to which they are attached formed (un)substituted cycloalkylene, cycloalkenylene or spirocycloalkylene; R4 = H; R5 = H, (un)substituted alkyl or heteroaryl, or R4 and R5 together with the carbon atom to which they are attached form cycloalkylene or heterocycloalkylene]] were prepd. as cysteine protease inhibitors, in particular, cathepsins B, K, L, F, and S, for treating diseases mediated by these proteases. Thus, compd. II was prepd. via peptide coupling of 2'-chlorobiphenyl-4-carboxylic acid with synthesized 2(S)-amino-N-cyanomethyl-3-(2,6-difluoro-4-methoxyphenyl)-propionamide. Compds. of the invention were tested by in vitro essays for protease activity and showed cathepsins B, K, L, F, and S inhibitory activity.

IT 710350-07-5P 710350-08-6P 710350-37-1P

710350-45-1P

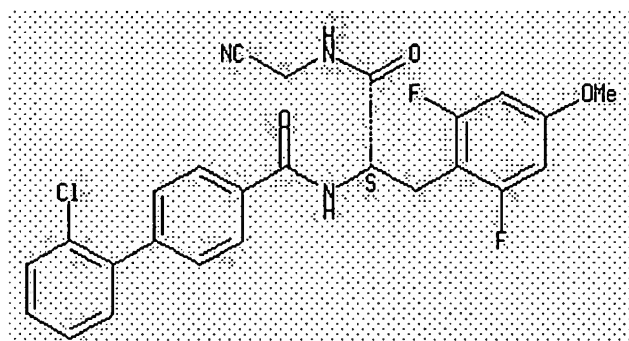
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of dipeptide cyanomethyl derivs. as cysteine protease inhibitors)

RN 710350-07-5 HCAPLUS

CN [1,1'-Biphenyl]-4-carboxamide, 2'-chloro-N-[(1S)-2-[(cyanomethyl)amino]-1-[(2,6-difluoro-4-methoxyphenyl)methyl]-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

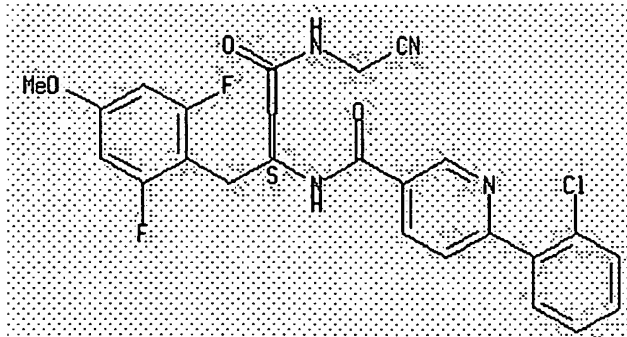


RN 710350-08-6 HCAPLUS

CN 3-Pyridinecarboxamide, 6-(2-chlorophenyl)-N-[(1S)-2-[(cyanomethyl)amino]-1-

[(2,6-difluoro-4-methoxyphenyl)methyl]-2-oxoethyl]- (9CI) (CA INDEX NAME)

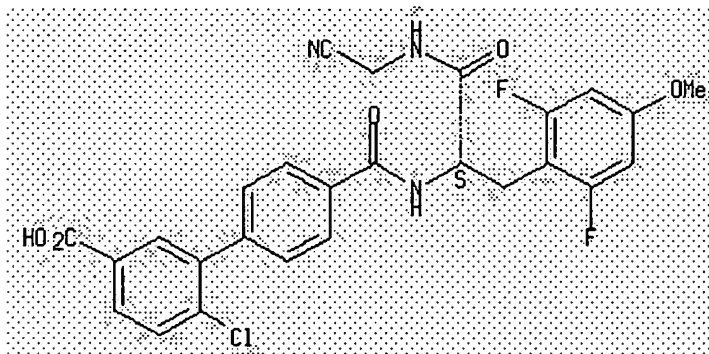
Absolute stereochemistry.



RN 710350-37-1 HCAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 6-chloro-4'-[[[(1S)-2-[(cyanomethyl)amino]-1-[(2,6-difluoro-4-methoxyphenyl)methyl]-2-oxoethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

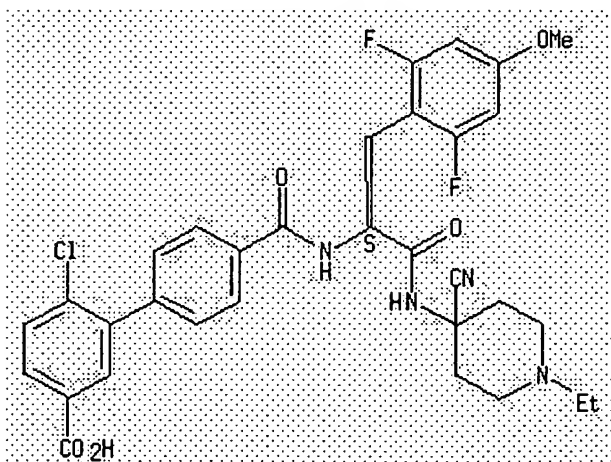
Absolute stereochemistry.



RN 710350-45-1 HCAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 6-chloro-4'-[[[(1S)-2-[(4-cyano-1-ethyl-4-piperidinyl)amino]-1-[(2,6-difluoro-4-methoxyphenyl)methyl]-2-oxoethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> s burrill, l?/au and palmer, j?/au and ryczewski, r?/au
17 BURRILL, L?/AU

1564 PALMER, J?/AU
 29 RYDZEWSKI, R?/AU
 L10 3 BURRILL, L?/AU AND PALMER, J?/AU AND RYDZEWSKI, R?/AU

=> d his

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FILE 'REGISTRY' ENTERED AT 15:49:34 ON 05 DEC 2005
 L1 STRUCTURE UPLOADED
 L2 1 S L1
 L3 28 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 15:55:04 ON 05 DEC 2005
 L4 3 S L3
 L5 1 S L4 AND BURRILL, L?/AU
 L6 2 S L4 NOT L5
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 L8 1 S L6 AND RYDZEWSKI, R?/AU
 L9 1 S L6 NOT L8
 L10 3 S BURRILL, L?/AU AND PALMER, J?/AU AND RYDZEWSKI, R?/AU

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L11 2 L10 NOT L4

=> d l11, ibib abs hitstr, 1-2

L11 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN

Full Text	Citing References
ACCESSION NUMBER:	2005:1163295 HCAPLUS
TITLE:	Design and Synthesis of Tri-Ring P3 Benzamide-Containing Aminonitriles as Potent, Selective, Orally Effective Inhibitors of Cathepsin K
AUTHOR(S):	Palmer, James T.; Bryant, Clifford; Wang, Dan-Xiong; Davis, Dana E.; Setti, Eduardo L.; Rydzewski, Robert M.; Venkatraman, Shankar; Tian, Zong-Qiang; Burrill, Leland C.; Mendonca, Rohan V.; Springman, Eric; McCarter, John; Chung, Tobee; Cheung, Harry; Janc, James W.; McGrath, Mary; Somoza, John R.; Enriquez, Philip; Yu, Z. Walter; Strickley, Robert M.; Liu, Liang; Venuti, Michael C.; Percival, M. David; Falguyret, Jean-Pierre; Prasit, Peppi; Oballa, Renata; Riendeau, Denis; Young, Robert N.; Wesolowski, Gregg; Rodan, Sevgi B.; Johnson, Colena; Kimmel, Donald B.; Rodan, Gideon
CORPORATE SOURCE:	Celera Genomics, Inc., South San Francisco, CA, 94080, USA
SOURCE:	Journal of Medicinal Chemistry (2005), 48(24), 7520-7534
PUBLISHER:	CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE:	American Chemical Society
LANGUAGE:	Journal
AB	English

ACCESSION NUMBER: 2005:1163295 HCAPLUS
 TITLE: Design and Synthesis of Tri-Ring P3 Benzamide-Containing Aminonitriles as Potent, Selective, Orally Effective Inhibitors of Cathepsin K
 AUTHOR(S): Palmer, James T.; Bryant, Clifford; Wang, Dan-Xiong; Davis, Dana E.; Setti, Eduardo L.; Rydzewski, Robert M.; Venkatraman, Shankar; Tian, Zong-Qiang; Burrill, Leland C.; Mendonca, Rohan V.; Springman, Eric; McCarter, John; Chung, Tobee; Cheung, Harry; Janc, James W.; McGrath, Mary; Somoza, John R.; Enriquez, Philip; Yu, Z. Walter; Strickley, Robert M.; Liu, Liang; Venuti, Michael C.; Percival, M. David; Falguyret, Jean-Pierre; Prasit, Peppi; Oballa, Renata; Riendeau, Denis; Young, Robert N.; Wesolowski, Gregg; Rodan, Sevgi B.; Johnson, Colena; Kimmel, Donald B.; Rodan, Gideon
 CORPORATE SOURCE: Celera Genomics, Inc., South San Francisco, CA, 94080, USA
 SOURCE: Journal of Medicinal Chemistry (2005), 48(24), 7520-7534
 CODEN: JMCMAR; ISSN: 0022-2623
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB We have prepd. a series of achiral aminoacetonitriles, bearing tri-ring benzamide moieties and an aminocyclohexanecarboxylate residue at P2. This combination of binding elements resulted in sub-250 pM, reversible, selective, and orally bioavailable cathepsin K inhibitors. Lead compds. displayed single digit nanomolar inhibition in vitro (of rabbit osteoclast-mediated degrdn. of bovine bone). The best compd. in this

series, 39n (CRA-013783/L-006235), was orally bioavailable in rats, with a terminal half-life of over 3 h. 39n was dosed orally in ovariectomized rhesus monkeys once per day for 7 days. Collagen breakdown products were reduced by up to 76% dose-dependently. Plasma concns. of 39n above the bone resorption IC50 after 24 h indicated a correlation between functional cellular and in vivo assays. Inhibition of collagen breakdown by cathepsin K inhibitors suggests this mechanism of action may be useful in osteoporosis and other indications involving bone resorption.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN



ACCESSION NUMBER: 2004:143127 HCAPLUS
 DOCUMENT NUMBER: 140:193099
 TITLE: Heterocyclic compound proteasome inhibitors, pharmaceutical compositions, and therapeutic use
 INVENTOR(S): Burrill, Leland C., III; Mendonca, Rohan V.; Palmer, James T.; Rydzewski, Robert M.
 PATENT ASSIGNEE(S): Axys Pharmaceuticals, USA
 SOURCE: PCT Int. Appl., 59 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014882	A2	20040219	WO 2003-US24960	20030808
WO 2004014882	A3	20040805		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-402183P P 20020809

OTHER SOURCE(S): MARPAT 140:193099

AB The invention discloses heterocyclic compds. that are proteasome inhibitors, pharmaceutical compns. comprising such compds., and methods of treating diseases mediated by unregulated proteasome activity. Compd. prepn. is included.

=> d his

(FILE 'HOME' ENTERED AT 15:49:28 ON 05 DEC 2005)

FILE 'REGISTRY' ENTERED AT 15:49:34 ON 05 DEC 2005

L1 STRUCTURE UPLOADED

L2 1 S L1

L3 28 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 15:55:04 ON 05 DEC 2005

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L4          3 S L3
L5          1 S L4 AND BURRILL, L?/AU
L6          2 S L4 NOT L5
L7          0 S L6 AND PALMER, J?/AU
L8          1 S L6 AND RYDZEWSKI, R?/AU
L9          1 S L6 NOT L8
L10         3 S BURRILL, L?/AU AND PALMER, J?/AU AND RYDZEWSKI, R?/AU
L11         2 S L10 NOT L4

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 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

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